

Earl Gosnell * Box 3492 * Eugene OR 97403

Dear FCC:

Re the matter of Interference Immunity Performance Specifications for Radio Receivers: ET Docket No. 03-65.

Here are my general comments.

You would do well to remember three adages. The first came from a movie where a midwestern farmer had a vision telling him to build a baseball field in his corn field so the ghosts of great players could get a game in. The vision told him, "If you build it, they will come."

The air around us contains these ghosts, electromagnetic signals that we can't see. But if one constructs a device with a long wire going to some kind of detector—oh, any nonlinear device

for instance—and then an amplifier and a speaker (or other transducer), why these invisible ghosts will manifest themselves. "If you build it, they will come."

The second adage also comes from our rural communities: "Good fences make good neighbors." Back when spark was king, everybody broadcasted on every frequency at the same time, and the most powerful at the time was the one who communicated. We found a better way by sharing the spectrum, dividing the various users among the various frequencies and ranges, and building transmitters working on individual frequencies and receivers to separate them out. It saved a lot of aggravation. "Good fences make good neighbors."

The third adage comes from earlier times, and it states, "The emperor is high and Rome is far away." We couldn't leave spectrum management to the vicissitudes of market forces, so Congress signed a treaty and then assigned a regulatory commission certain tasks, the FCC. But because you've got limited resources, there are a lot of minor infractions every day that you either never hear about or just can't be bothered with, and people act accordingly. "The emperor is high and Rome is far away."

Now, the market forces do a credible job. I educate myself on the performance of high class amateur gear developed amidst competition and so end up with good immunity to interference at my station. I have a separate shortwave broadcast receiver that does not have such rigid specifications as my ham gear, but it gets the stations I want to hear clear enough, and I didn't have to spend (another) fortune. Finally there is my AM broadcast receiver. It does the job it was intended to do; I got my clock radio mostly for its control features and trust it does an adequate job for my needs. I have in the past ended up with a cruddy AM broadcast receiver, but then I hadn't paid much for it so no great loss.

Over my life I've used anything from a crystal receiver to TRF, regenerative, superhet, & multiple conversion receivers. I don't think there is one specification that would fit them all, though you might want to word a vague statement like good engineering design. And even if you did specify a minimum standard for some class of receiver, it could result in too much satisfaction with meeting it to improve on it.

The one complaint I remember receiving was from a fellow

renter who lived in the garage who said my ham radio was interfering with his TV set. It was an old set, and when I showed him some literature detailing how it is often the fault of the receiver for not rejecting unwanted signals, he was satisfied. The literature did mention that some old sets have a 21 mc. IF frequency, and it was the 21 mc. amateur band I was transmitting on. It helps to understand facts like that. Even a small label on the receiver telling of its susceptibility could turn the trick in some cases.

I might add that besides holding an amateur extra class ticket, I have a BS in electrical engineering, and the neighbor himself was a CB'er. I think that in letting the public resolve routine interference issues among themselves, there is sort of an unstated assumption that the amateur operator is also an engineer who can correct complex technical problems and the neighbor complaining is easy going and has at least the radio framework of a CB'er.

That's not always the case. There was another renter in the building with a touch-control lamp which was interfering with both my ham station and the CB'er's set. When I brought it to his attention, that it was in violation of part 15, he insisted that his lamp was legal but my radio was not because it interfered with his TV. The guy made a fist and was willing to fight. What could I do? "The emperor is high and Rome is far away." The FCC does not usually get involved in such squabbles. Both the CB'er and I moved.

Now I live in a high class neighborhood with great neighbors. The woman across the street is in real estate and her husband is an accountant. They spend all kinds of money making their place tip-top, with crews working on this and that so it looks great. They have some kind of touch control lamp or similar device that interferes with my radio, but it's the woman who controls the household, and they are very private and won't countenance anybody monkeying with their lamps. I was told to solve my interference problem some other way. She lacks the concept of what's involved, so I am left to take what electronic countermeasures I can.

These touch control lamps employ both a transmitter and receiver in a loop. Hand capacitance interrupts the loop controlling the lamp. The rf signal is at LF, but many such lamps use raw unfiltered pulsating dc and no isolation from the line, so they broadcast rich broadband harmonics up the spectrum. They are also susceptible to being operated by strong HF signals. Operating cw, my transmitter evidently keys the lamp, heating the control circuit in the process, and moving the frequency off. It is a case of, "If you build it, they will come." Somebody made a lamp with a control circuit attached to a long ac wire, and the lamp gets controlled by strong HF signals. I know you want to let market forces dictate performance, but those lamps performed without any filtered dc or isolation from the line, and I am not sure how fast the market will respond to hams' complaints, and you're being incredibly optimistic if you think we licensed users can handle ignorant consumers whenever problems arise.

Now I understand some companies want to transmit computer signals (at rf frequencies) along the ac power lines. Why, that

is a regression to the days of spark, when those long wires were called skyhooks and the strongest user (read computer) just swamped out everybody else (read hams). For sending such computer signals along wires, there is like, shielded (coaxial) cable.

"Good fences make good neighbors."

Sincerely yours,

cc. ARRL

Earl S. Gosnell III